FOCUSED SITE INSPECTION PRIORITIZATION
SITE EVALUATION REPORT

WASTEX RESEARCH #1
301 SOUTH 15TH STREET
EAST ST. LOUIS, ILLINOIS

CERCLIS ID NO.: ILD980606966

Prepared for:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
SITE ASSESSMENT SECTION
77 West Jackson Boulevard
Chicago, Illinois 60604

Date Prepared:	September 28, 1995
U.S. EPA Region:	5
Contract No.:	68-W0-0037
Technical Direction Document:	T05-9503-251
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TABLE OF CONTENTS

LIST OF FIGURES

1. INTRODUCTION

The Ecology and Environment, Inc. (E & E), Technical Assistance Team (TAT) was assigned by the United States Environmental Protection Agency (U.S. EPA), under Contract No. 68-W0-0037, Technical Direction Document (TDD) T05-9503-251 to evaluate the Wastex Research #1 site located in East St. Louis, Clair County, Illinois. E & E performed Focused Site Inspection Prioritization (FSIP) activities for the site to determine to what extent it poses a threat to human health and the environment and has prepared this FSIP report. This FSIP report presents the results of E & E's evaluation and summarizes the site conditions and targets pertinent to the migration and exposure pathways associated with the site background. Background information was obtained from an Illinois Environmental Protection Agency (IEPA) Division File (DeSelm 1980), a Preliminary Assessment (PA) report (IEPA 1985), two Screening Site Inspection (SSI) reports (E & E 1986; 1986a), U.S. EPA site files, and a site reconnaissance performed on July 27, 1995 (E & E 1995).

This report is organized into six sections, including this introduction. Section 2 describes the site and provides a brief site history. Section 3 provides information about previous investigations conducted at the site. Section 4 provides information about the four migration and exposure pathways (groundwater migration, surface water migration, soil exposure, and air migration). Section 5 is a report summary. References used in the preparation of this report are listed in Section 6.

2. SITE DESCRIPTION AND HISTORY

The Wastex Research #1 site is located at 301 South 15th Street, East St. Louis, St. Clair County, Illinois. The coordinates for the site are latitude 38°36'27" North and longitude 90°08'46" West (IEPA 1985). The site was formerly a solvent recovery facility and is now an active gasoline distribution center for Amoco Oil Corporation, under the name of Collier Oil Company. The site is currently owned and operated by Mr. Joe Collier, the Wastex Research #1 operations were moved to another location in 1980. The site is bordered on the east by the H. H. Hall Construction Company. The site is bordered on the southeast and southwest by 15th Street. The site is bordered on the west and northwest by residential areas. An unnamed railroad borders the site to the north. The Lincoln High School is approximately 0.25 miles northwest of the site. The site is located within the city of East St. Louis, Illinois, with a population of approximately 52,500 (U.S. Bureau of the Census 1992). The site location is shown on Figure 2-1.

The Wastex Research #1 site was a solvent recovery operation on approximately 1 acre of land. The Mississippi River is the nearest surface water body, located 0.75 miles west of the site. The topography of the surrounding area is relatively flat (E & E 1986). Runoff from the site is collected by municipal sewers or by a trench located in the northwestern side of the property (DeSelm 1980; E & E 1986a).

2.1 SITE HISTORY

The site property was originally owned and operated by Standard Oil Corporation before 1977, and operated as a fuel transfer station. It is unknown when Standard Oil Corporation began operation at the site. The property had been purchased by Mr. J.J. Guelbert in 1976 or 1977; the specific date of purchase is unknown. Mr. Guelbert opened

Guelbert's Auto, an oil transfer station, in the building adjacent to the Wastex Research #1 building on the southwest corner of the property.

Mr. Guelbert leased the site to Jack and Norma Chase who ran the waste recovery business in the Wastex Research #1 building from 1977 to 1980. Norma Chase owned the operation, and Jack Chase operated it. It is uncertain what the Chases called their operation at this time, but in October 1979, the operation was incorporated and named Wastex Research #1. Wastex Research #1 operated at the 301 South 15th Street address from November 1979 to June 1980. Currently, the property is owned by Mr. Joe Collier who purchased the facility in 1979, but continued to lease the property to the Chases to run Wastex Research #1. Mr. Collier renamed Guelbert's Auto, Collier Oil Company, and opened an Amoco oil distribution center. When the Wastex Research #1 facility closed in 1980, the Chases moved out of the area (E & E 1986; 1986a).

2.2 SITE DESCRIPTION AND OPERATIONS

The Wastex Research #1 property contains two buildings, an above-ground fuel oil storage tank area, a loading dock, an unloading terminal, and an equipment shed. Site features are shown on Figure 2-2. The Collier Oil Company building is located in the southwest corner of the property adjacent to the abandoned Wastex Research #1 building which is located in the southeast corner of the property. The loading terminal is located in the center of the property north of the Collier Oil Company building. The above-ground fuel oil storage area is north of the loading dock (E & E 1986a). The unloading terminal is east of the above-ground fuel oil storage area, south of which, is the equipment shed. The back lot, located in the northern part of the property, was an area where drums were stored. This area is diked so that runoff is flowed to this part of the property. A trench, measuring 10 feet by 10 feet by 5 feet, had been constructed to serve as a catch basin for on-site runoff. Supposedly, this trench was filled in after IEPA had notified Wastex that they should close the site (see Section 3). At that time, Mr. Collier, the current site operator, applied 4 to 5 inches of topsoil to the northwest corner of the site and seeded it with grass. Apparently, Mr. Collier had also been remodeling the interior of the Wastex Research #1 building. At the time of 1986 site inspection, E & E FIT was not provided with the specifics of Mr. Collier's actions (DeSelm 1980; E & E 1986).

The Wastex Research #1 facility building is currently used for storage of material by Mr. Collier. None of these materials have been documented to be hazardous wastes or hazardous materials. No wastes, drums, or other potentially hazardous materials remain on site. The Wastex Research #1 building contains 5 bulk storage tanks which are reportedly empty. During the E & E FIT SI, solvent odors, however, were apparent inside the room where the tanks are located (E & E 1986).

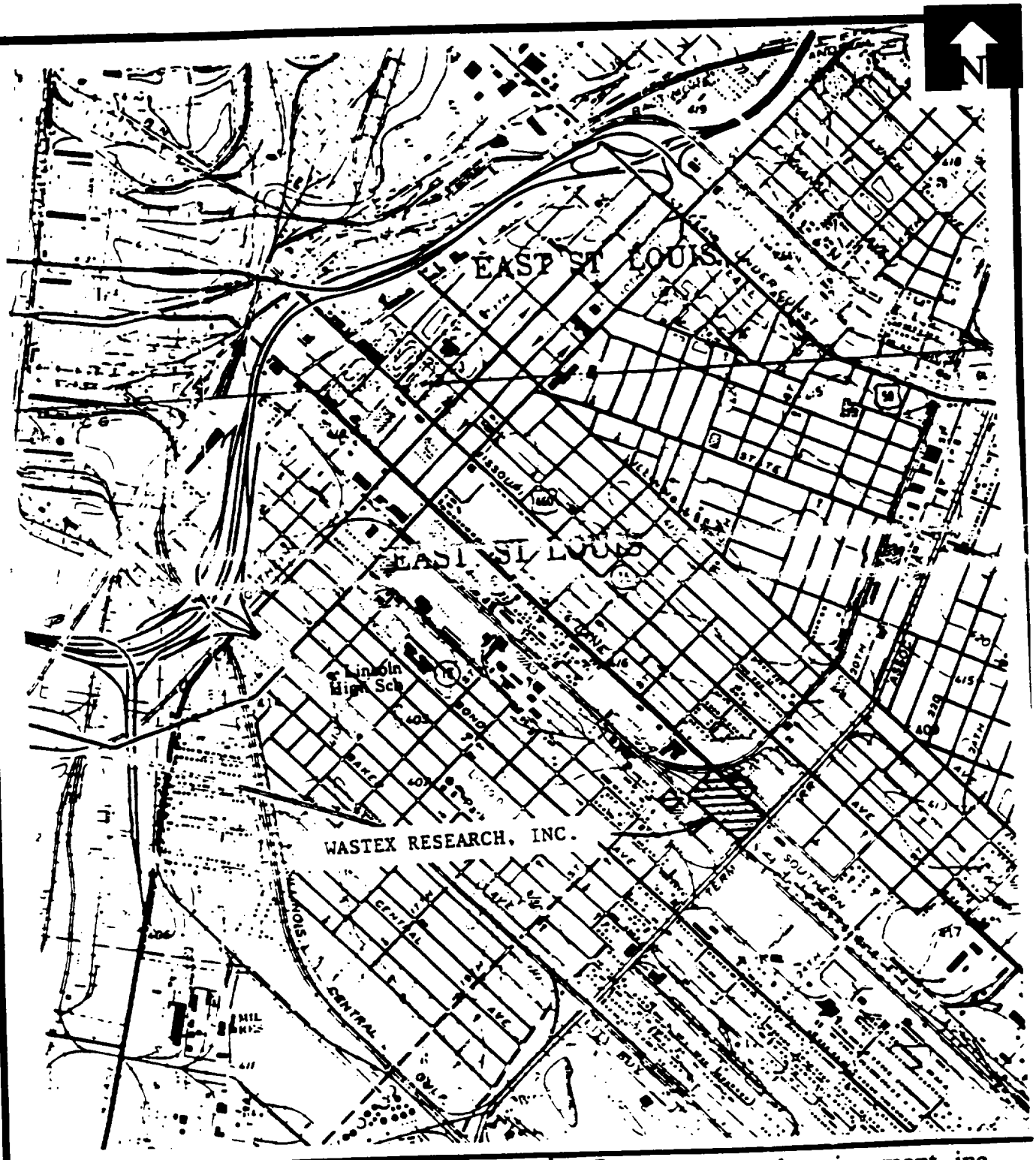
The E & E Technical Assistance Team (TAT) performed a site reconnaissance inspection of the Wastex Research #1 site on July 27, 1995. The following is a description of the current activities and facility features. The facility is fenced with an eight-foot chain-linked fence topped with barbed wire (see Appendix A, photographs 1-4). Night security lights are present around the property. Twelve aboveground oil tanks (10,000 gallons) were present in the center of the property (see Appendix A, photographs 5-8). The tanks were still connected to pipelines and any oil appeared contained. Fourteen aboveground tanks were present southeast of the twelve aboveground oil tanks, and were not connected to pipelines. Oil-stained soil was present near the unloading terminal. There appeared to be no off-site migration of contaminants. There is a low-lying area in the middle of the site that on-site runoff streams drain into (E & E 1995).

Operations on site consisted of collecting waste solvents from various commercial and industrial sources for reclamation and subsequent resale as fuel. Drums were normally stored inside or along the loading docks on the concrete and/or asphalt. Five large storage tanks located inside the building were used to store bulk liquids and reclaimed solvents. Recycling operations were accomplished by distillation. Waste solvents were accepted on site by off-site generators in drums and bulk tanks. The maximum number of 55-gallon drums on site at any time were approximately 2,500. Most of the drums were stored indoors, but up to 750 may have stored outdoors, on the loading dock on concrete and/or asphalt. Five large storage tanks located inside the building were used to store bulk liquids and reclaimed solvents. Still bottom sludges and other wastes were stored in empty waste solvent drums (E & E 1986; 1986a).

The Wastex Research #1 site received wastes from numerous generators. The facility itself had no waste generator license and therefore, in the process of waste reclamation, many wastes were stored on site. As a result of contaminant dumping in the northwestern part of the property, IEPA ordered Wastex Research #1 to remove all of their wastes and drums, and

clean up contaminated soils. An unknown quantity of contaminated soils were removed from the site. It has not been documented that all of the soils were removed; contaminated soils were mixed with soils and other liquids and left on site (see Section 3 for more details) (E & E 1986). When the site was closed in 1980, all remaining waste solvents, still bottoms, and other wastes were transferred to the Wastex Research #2 facility located at 2000 Broadway, in East St. Louis (E & E 1986a).

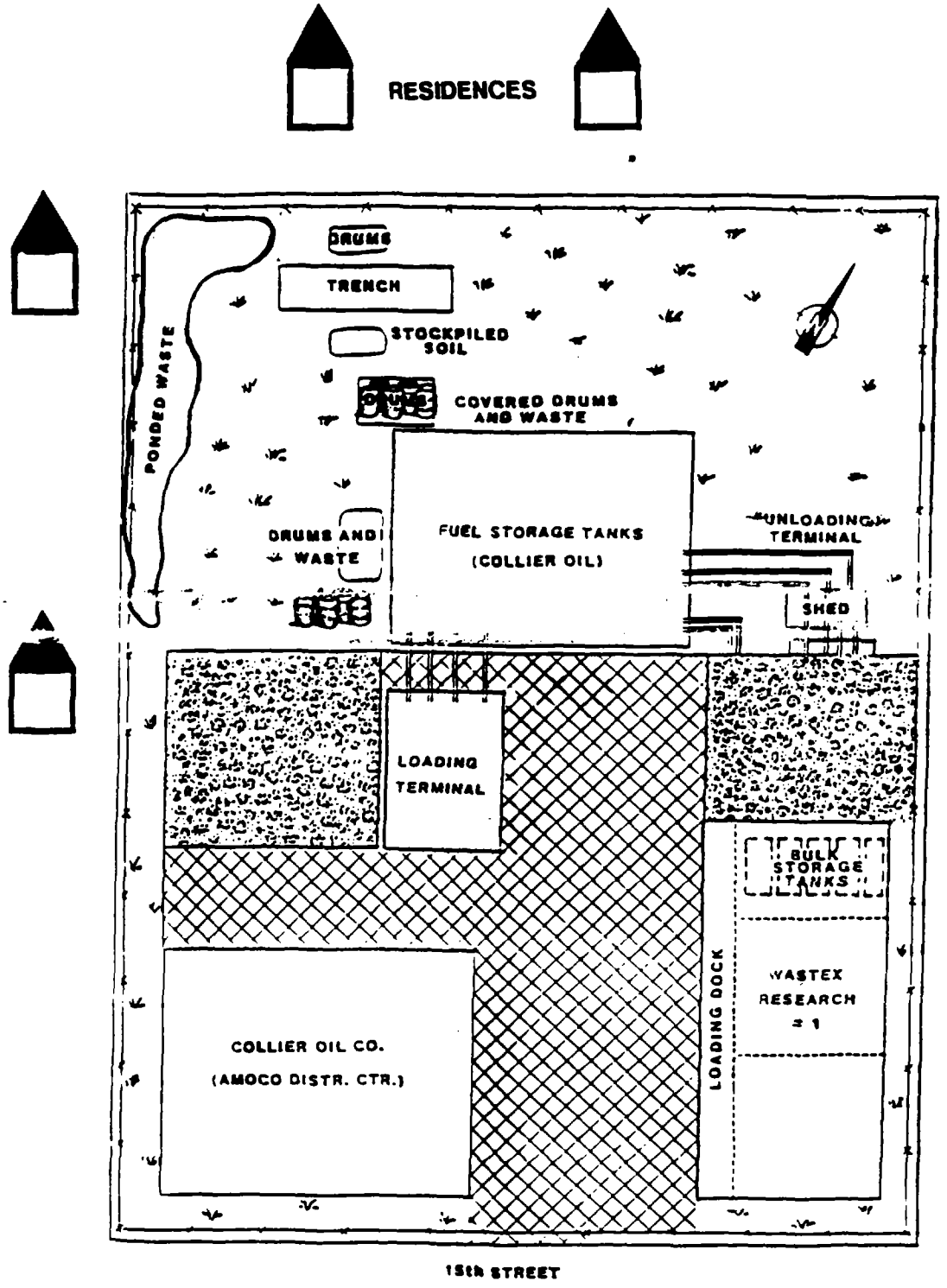
The Wastex Research #1 site is included in the Comprehensive Environmental Response, Compensations and Liability Act Information System (CERCLIS) listing for Illinois and is not listed as a RCRA site. No further enforcement or regulatory action has been taken against the site (E & E 1986).



Quadrangle Location

ecology and environment, inc.
Technical Assistance Team
Region V

TITLE	Site Location Map	FIGURE # 2-1
SITE	Wastex Research #1	TDD# T05-9501-251
CITY	East St. Louis STATE Illinois	SCALE 1:24,000
SOURCE	United State Geological Survey St. Louis, Illinois, 7.5 Minute Series	DATE 1974
		REVISED



ecology and environment, inc. Technical Assistance Team Region V	
TITLE: Site Features Map	FIGURE #: 2-2
SITE: Wastex Research #1	TDD: T05-9501-251
CITY: East St. Louis STATE: Illinois	SCALE: Not to scale
SOURCE: Ecology and Environment, Inc.	DATE: 1986 REVISED: 1995

3. PREVIOUS INVESTIGATIONS

The Wastex Research #1 site was discovered by IEPA, on January 18, 1980, when IEPA found that the facility did not have any special waste disposal permits or a proper waste manifest system. Mr. Jack Chase, the facility operator, admitted that the facility had been accepting some waste loads without proper manifests. On January 23, 1980, Mr. Chase told IEPA officials that the back lot had been filled with empty drums for approximately three weeks prior to this interview. Crushed drums were also located in the back lot. The drums were standing in a waste pool that covered the bottom third of the drums. Due to some leaking drums and rainwater, the lot had become ponded. This was caused by the berm in the back lot and runoff flows toward the north-northwest. Mr. Chase built a trench in the back lot to allow surface water to flow into it. Mr. Chase had speculated that large quantities of waste had leaked, but was unsure of the exact quantity. Mr. Guelbert, the property owner, told Mr. Chase to clean up the back lot. Mr. Chase moved the drums to one of the Wastex Research #1 buildings. Loads of dirt were brought on site and mixed with water and waste to absorb the spill wastes. This waste mixture was stockpiled in the back lot (DeSelm 1980). Supposedly, once the mixture was applied to the wastes in the trench to soak it up, the mixture with the on-site wastes was also stockpiled on site. According to DeSelm of IEPA, the stockpiled mixture was in the same pile as the stockpiled waste. There is no documentation to suggest that the soil wastes were taken off site (DeSelm 1980).

On January 23, 1980, IEPA performed an SSI of the Wastex Research #1 site and collected four soil samples in the northeastern part of the property. All samples contained petroleum-based constituents. Maximum contaminant concentrations encountered were: toluene at 24,000 micrograms per liter (μg/g), xylene at 62,000 μg/g, other alkylbenzenes at 40,000 μg/g, naphthalene at 9600 μg/g, and aliphatic hydrocarbons at 135,000 μg/g (DeSelm

1980). Refer to Appendix B for a description of past site sample locations and analytical data from the 1980 IEPA SI.

On March 4, 1985, IEPA prepared a Preliminary Assessment report of the Wastex Research #1 site. No samples were collected during this site visit. The report documented that emissions from the burning of waste solvents had caused air pollution problems at the site. IEPA reported that the building facility was not properly ventilated, because solvent vapors were present. There were 20 workers on site that could be affected by solvent inhalation. In 1980, the H.H. Hall Construction Company, located east of and adjacent to the site, complained that the paint on their trucks was corroded by the burnt solvent pollution emanating from the Wastex Research #1 facility, and that cars in the adjacent parking lot were also affected. The date of the complaint is unknown, but a lawsuit was brought against the Wastex Research #1 facility. No further documentation of this incident was provided in the IEPA files.

The IEPA 1985 report documented that Wastex Research #1 had closed in 1980, and that all waste materials were moved to Wastex #2 located at 2000 Broadway, East St. Louis, Illinois. The site closing was identified as a pre-RCRA-closure by IEPA, however, proper inspection and closing procedures, presumably authorized by IEPA, were not followed. This site is not listed as regulated under RCRA. No further information as to the specifics of this closure in reference to RCRA regulations and permits was provided in IEPA files. IEPA recommended that further inspection be performed, especially in the back lot area where wastes had been dumped in the past. Groundwater monitoring devices were to be installed if deemed necessary (IEPA 1985).

On July 2, 1986, E & E FIT performed a site inspection of the Wastex Research #1 site, and interviewed the General Site Manager, Mr. Terry Hein. E & E had been retained by the U.S. EPA to evaluate the Wastex Research #1 site (Nelson 1986). During the site inspection observations were made of current site conditions, but no samples were collected. The Wastex building was vacant and partially used for storage of materials by Mr. Collier, the site owner. It is unknown what types of materials were stored, but it was confirmed by Mr. Hein, that the materials were not considered special or hazardous wastes. The bulk storage tanks inside the building were still present and contained solvent residues. Solvent vapors were detected inside of the building, however, no vapors were observed outside either on or off site. No drums were present on site. No solvent vapors or signs of contamination

were detected or observed in the area where drum crushing activities were previously conducted in the back lot (DeSelm 1980; E & E 1986).

During the interview with Mr. Hein, he confirmed that there was a 1980 incident where wastes were dumped in the northwest corner of the back lot. IEPA arrived the next day to inspect the site and had all Wastex operations halted. It was confirmed by IEPA that drums were crushed on site, and wastes were put into the trench that was built to catch on-site runoff and to direct on-site runoff liquids into the trench. Liquid was pumped from the trench to bulk storage tanks, and then shipped to the Wastex #2 facility when it opened. Soils from the trench were excavated, and the pit was then filled. It is not documented whether the excavated soils were shipped off site or if all of the contaminated soil in the trench was excavated. Mr. Collier has covered the previously contaminated soil area with topsoil and seeded it with grass (E & E 1986). It is unknown if the stockpiled wastes soils are still on site.

Mr. Hein confirmed that a legal suit was brought against Wastex Research #1 when fumes from on-site practices were damaging cars in an adjacent lot over on the H.H. Hall Construction property.

On August 28, 1986, E & E FIT prepared a Site Inspection report to summarize findings from the IEPA 1985 PA, and the E & E July 2, 1986 site interview and reconnaissance.

On July 26, 1995, E & E TAT performed a site reconnaissance. The 1995 E & E TAT site reconnaissance was performed in order to acquire current site information about current site activities, and to observe if current site activities were contributing contamination to on- or off-site targets (E & E 1995).

4. MIGRATION AND EXPOSURE PATHWAYS

This section describes the four migration and exposure pathways associated with the Wastex Research #1 site. Section 4.1 discusses the groundwater migration pathway; Section 4.2 discusses the surface water migration pathway; Section 4.3 discusses the soil exposure pathway; and Section 4.4 discusses the air migration pathway.

4.1 GROUNDWATER MIGRATION PATHWAY

This section discusses regional geology and soils, groundwater releases, and targets associated with the groundwater migration pathway at the site.

4.1.1 Geology and Soils

The area surrounding the site is located on top of unconsolidated valley fill and valley train materials ranging in thickness from 50 to 120 feet (Schicht 1965). The valley fill material is composed of alluvial deposits (sands, gravels, and clays) that overlie the older valley train deposits (outwash sands and gravels from glacial meltwater), which range in thickness from 30 to 40 feet (Schicht 1965). Unconsolidated material in the area consists of fine-grained alluvial deposits of clays, silts, and fine sands overlying glacial valley train deposits. The glacial unconsolidated material constitutes the primary groundwater aquifer in the area (E & E 1990).

Underlying the glacial and fluvial material are Pennsylvanian age bedrock layers of limestone and dolomite, with minor interbedded layers of shale and sandstone. The bedrock in this area is characterized by low permeability and poor water quality and is not used as a source of potable water in the site area. The upper aquifer, generally located between 20 to 40 feet below ground surface, is the aquifer under investigation (Collins 1995). Well logs in

the area suggest that no continuous confining layer exists between the unconsolidated deposits and the bedrock in the area, which is encountered between 90 and 120 feet below ground surface (BGS) (Collins 1995). Area well logs also indicate that well depths in the area range from 30 to 110 feet BGS. The direction of the groundwater underlying the St. Clair County area appears to flow in a generally west/southwest direction (E & E 1990). No monitoring wells are located on the Wastex Research #1 site.

Approximately 300,000 persons within a 4-mile radius of the site obtain drinking water from the Illinois-American Water Company, which draws its water from two intakes along the Mississippi River (E & E 1990; U.S Bureau of the Census 1992). The locations of these intakes are the following: sec. 11, T 2 N, R 10 W, located northwest of the site approximately 1.5 miles, and sec. 28, T 4 N, R 10 W, located approximately 15 miles northwest of the site, just south of Wood River, Illinois (Buck 1995; United States Geological Service [USGS] 1954).

According to IEPA, no residents of East St. Louis use private well waters (IEPA 1985). However, there are approximately 650 acres of land within 4 miles of the site is used for growing food crops which are irrigated by groundwater from the aquifer under investigation. A population of approximately 975 people utilize groundwater for irrigation in the site area (E & E 1990).

4.1.2 Groundwater Releases

A release of hazardous substance from the Wastex Research #1 site to groundwater is likely based on current and past site conditions. No monitoring wells are located on site, and no groundwater sampling has been documented. Currently, no waste solvents or chemicals from the former Wastex Research #1 operation are present on site except for what may exist in the back lot area. Additionally, no information exists to evaluate potential contamination on site resulting from the Collier Oil Company operations, owned by Mr. Collier. According to E & E TAT, the on-site oil tanks are a potential source of on-site contamination. No information regarding the presence of spill containment apparatus has been documented in past site reports. No leaking was observed during the E & E TAT 1995 site reconnaissance.

Since it has not been documented that contaminated soils were completely removed from the site, the back lot where the trench was located in the northeast part of the site is still a potential source that could contaminate underlying groundwater. There is no documentation

as to whether this trench was lined in order to prevent the downward migration of contaminants. The contaminant concentrations of volatile organic compounds (VOCs) encountered in on-site soils during the IEPA 1980 sampling effort were extremely elevated. Acceptable detection limits for toluene and xylenes are 0.002 mg/kg and 0.005 mg/kg for these two compounds, respectively (IEPA 1991). These petroleum constituents could potentially migrate to the aquifer underlying the site, due to the permeable nature of the on-site soils. This is significant, because the hydraulic continuity that exists in the underlying soil media could allow contaminants to migrate to multiple underlying aquifers that may exist underneath the site (E & E 1990).

Another potential pathway of contamination is groundwater to the surface waters of the Mississippi River. Bedrock is closer to ground surface near the river banks, therefore, groundwater could migrate into the Mississippi River where surface bedrock forms the banks of the river. Groundwater contamination from the site could potentially migrate 0.75 mile due west to the Mississippi River. The existence of this potential pathway has not been confirmed. Due to the hydraulic conductivity of unconsolidated valley fill layers that underlie the St. Clair County area, it would be impossible, with all of the industry located in the City of East St. Louis to differentiate the contaminant sources that may or may not be contributing to potential surface water contamination. The Mississippi River is a state-designated fishery, therefore, surface water contamination should be monitored regardless of potential sources (IDOC 1991).

4.1.3 Targets

The collection pipe system appears to be the only engineered containment system that exists on site. The back lot in the northwest part of the property could potentially contain the petroleum-based contaminants that may not have been removed off site. Because the contaminant concentration of the soils was so high, it is likely that contaminants may still be migrating to the shallow groundwater aquifer that exists underneath the Wastex Research #1 site.

No residents within a four-mile radius of the site obtain drinking water from private residential wells (Jackson 1986; Sears 1986). Approximately 300,000 persons within a 4-mile radius of the site obtain drinking water from the Illinois-American Water Company, which draws its water from two intakes along the Mississippi River (E & E 1990; U.S Bureau of the

Census 1992). The locations of these intakes are the following: sec. 11, T 2 N, R 10 W located northwest of the site approximately 1.5 miles, and sec. 28, T 4 N, R 10 W located approximately 15 miles northwest of the site just south of Wood River, Illinois (Buck 1995; United States Geological Service [USGS] 1954).

4.2 SURFACE WATER MIGRATION PATHWAY

A release of hazardous substances to surface water is unlikely based on past and current site conditions, however, there are no barriers which prevent surface water from migrating off site to adjacent residents. Runoff from the site could potentially enter sewers in the area, however, according to Mr. Reginald Williams of the East St. Louis Water Pollution Control Center, the sewer system for East St. Louis is a combination collection system for storm water and waste water. Both storm water and waste water are sent through the City's treatment systems prior to discharge into the Mississippi River (Williams 1986).

Targets that could be subject to potential surface water contamination are persons that live adjacent to the site to the north and west. No surface water contamination was observed draining off site during the E & E TAT 1995 reconnaissance visit.

Three terrestrial sensitive areas exist within four miles of the site. Two of the sites are the Audubon Avenue Heron Colony located in East St. Louis at the intersection of 26th street and Audubon Avenue, and the East St. Louis (Alorton) Heron Colony located in Alorton. The exact locations of these sites are sec. 8, T 2 N, R 9 W and sec. 8, T 1 N, R 9 W respectively, each site is located approximately 1.5 to 2 miles south/southeast of the site (IEPA 1994). The Holten State Park located approximately 2.75 miles southeast of East St. Louis in Centreville (United States Geological Survey [USGS] 1974). There are many barriers such as residential areas, businesses, streets and railroad tracks that prevent a direct surface water migration pathway from the site to these terrestrial areas, therefore, it is unlikely that any surrounding sensitive areas could be affected by on-site contaminants. There are a number of threatened and endangered birds that exist within St. Clair County. Appendix C contains a list of threatened and endangered birds in St. Clair county (IEPA 1994).

4.3 SOIL EXPOSURE PATHWAY

A release of hazardous substance from the Wastex Research #1 site to on-site soils is likely based on past site conditions. On-site soil samples collected by IEPA in 1980 contained petroleum-related compounds such as benzene, toluene, xylenes, naphthalene, aliphatic hydrocarbons, and other alkylbenzenes. All concentrations encountered were extremely elevated. No off-site soils samples were collected, therefore, there is no documentation of contaminant migration off site. Since it is unclear whether the contaminant sources have been completely removed, residents are at a potential risk of dermal contact and incidental ingestion exposure to contaminants from the Wastex Research #1 site (E & E 1986).

The Wastex Research #1 site is completely fenced, therefore, it is unlikely that trespassers would be encountered on site. The Lincoln High School is located approximately 0.25 miles northwest of the site. The population within one mile of the site is approximately 7,800 persons, based on a straight-line distance (E & E 1986a).

The Wastex building is abandoned, however, workers are employed at the Collier Oil facility which is located on-site. There are approximately 20 workers at the site who are potentially exposed to on-site contaminants via dermal contact and/or incidental ingestion of on-site soils (E & E 1986).

Three sensitive areas exist over 1 mile away from the site that would not be affected by on-site contaminants. There are threatened and endangered birds in St. Clair County, however, that are at risk of incidental ingestion of or dermal contact with on-site soils if they land on site. See Appendix C for a list of threatened and endangered birds in St. Clair County (IEPA 1994).

4.4 AIR MIGRATION PATHWAY

A release of hazardous substances to air is unlikely based on current conditions. However, an air release potentially may have occurred previously based on site files. In 1980, one complaint of odors and property damage came from the H.H. Hall Construction Company, located east of the site. No engineering controls to monitor air emissions have been documented in the IEPA-provided literature. No air pollution releases have been documented since 1980 (IEPA 1986).

There are 20 workers present on site daily at the Collier Oil Facility. No on-site air contamination was documented during the E & E FIT 1986 SSIs, or the E & E TAT site reconnaissance.

5. SUMMARY

E & E has evaluated the Wastex Research #1 site using the existing IEPA and U.S. EPA files, a site reconnaissance, and personal communications. The site has been closed since 1980 (E & E 1986; 1986a). The site was once a waste solvent recovery operation where a maximum of 2,500 55-gallon drums of waste were stored on site. IEPA sample analysis soil samples collected in the northwestern part of the site in 1986 revealed the presence of toluene, xylenes, alkylbenzenes, naphthalene, and aliphatic hydrocarbons. It has not been documented whether or not all contaminated soils have been removed from the site.

No residents of East St. Louis and surrounding communities within a four-mile radius of the site obtain drinking water from private residential wells (Jackson 1986; Sears 1986). Approximately 300,000 persons within a 4-mile radius of the site obtain drinking water from the Illinois-American Water Company, which draws its water from two intakes along the Mississippi River (E & E 1990; U.S Bureau of the Census 1992). The locations of these intakes are the following: sec. 11, T 2 N, R 9 W located northwest of the site approximately 1.5 miles, and sec. 28, T 4 N, R 10 W located approximately 15 miles northwest of the site just south of Wood River, Illinois (Buck 1995; United States Geological Service [USGS] 1954).

A release to groundwater is likely based on past and possibly, current site conditions. It is unknown whether contaminants (waste material and contaminated soils) at the Wastex Research #1 have been completely removed. No on-site monitoring wells have been documented at the Wastex Research #1 facility. Therefore, there is no documentation of whether this facility has contaminated groundwater in the past. Due to the permeable nature of on-site soils and the shallow water table beneath the site, the downward infiltration of

contaminants to groundwater is possible. This contamination could potentially migrate to the American Bottoms aquifer, the aquifer under investigation in this area.

A release of hazardous substances to surface water is unlikely. There are no surface water migration pathways leading from the site to the Mississippi River, the closest water body. It is possible, however, that a release of surface waters to surrounding residential areas occurred. E & E TAT reported, however, that runoff may go to a central part of the site which is at a lower elevation than the rest of the property. Three terrestrial sensitive areas exist within four miles of the site. Two sensitive areas are the Audubon Avenue Heron Colony located in East St. Louis at the intersection of 26th Street and Audubon Avenue, and the East St. Louis (Alorton) Heron Colony located in Alorton. The exact locations of these areas are sec. 8, T 2 N, R 9 W and sec. 8, T 1 N, R 9 W respectively, both located approximately 1.5 to 2 miles south/southeast of the site (IEPA 1994a). The Holten State Park is located approximately 2.75 miles southeast of East St. Louis in Centreville (United States Geological Survey [USGS] 1974). There are many barriers such as residential and industrial areas, streets, and railroad tracks that prevent a direct surface water migration pathway from the site to these terrestrial areas. Therefore, it is unlikely that any surrounding sensitive areas could be affected by surface water runoff containing site contaminants. There are a number of threatened and endangered birds in Madison County that exist within St. Clair County. See Appendix C for a listing of threatened and endangered birds in St. Clair county (IEPA 1994). The Mississippi River is a state-recognized fishery located approximately 20 miles upstream from the site (Illinois Department of Conservation [IDOC] 1991). It is unknown if any recognized fisheries are located within the East St. Louis area.

A release of hazardous substances from the Wastex Research #1 site to on-site soils has been documented based on the 1980 IEPA samples results. The Wastex Research #1 site is completely fenced. The nearest residences are adjacent to the site, within 20 feet. No daycare centers or schools exist within 200 feet of the site. Approximately 7,800 persons live within 1 mile straight-line distance from the site. Three sensitive areas exist within a 4-mile radius of the site, however, due to the distance of the site to these areas and intervening structures between the site and the sensitive areas, migration of site contaminants to these areas is unlikely (IEPA 1994). Threatened and endangered birds exist in St. Clair County who could be exposed to on-site soils via dermal contact or incidental ingestion. See

Appendix C for a listing of threatened and endangered species in St. Clair County (IEPA 1994).

A release of hazardous substances to air is unlikely because Wastex Research #1 operations have ceased. There is past documentation of air releases from the Wastex Research #1 site to the environment that affected a nearby business when solvent vapors from the site corroded nearby automobiles. The three sensitive areas and threatened and endangered birds exist within four miles of the site (IEPA 1994).

6. REFERENCES

References not included in Appendix D: documents that are currently available within U.S. EPA files; copyrighted documents that are currently available in E & E's library; maps produced by either the United States Geological Survey or Illinois State Geologic Survey; and documents that are created by the various state agencies for public use.

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United States Geological Service, 1974, French Village Topographical Map, Illinois Quadrangle, 7.5 Minute Series, 1:24,000.

APPENDIX A

SITE RECONNAISSANCE PHOTOGRAPHS

Photo: 1

Direction: Unknown

Time: 17:08

Date: July 27, 1995

Site Name: Wastex Research #1

Description: Fence surrounding site.

Photo: 2

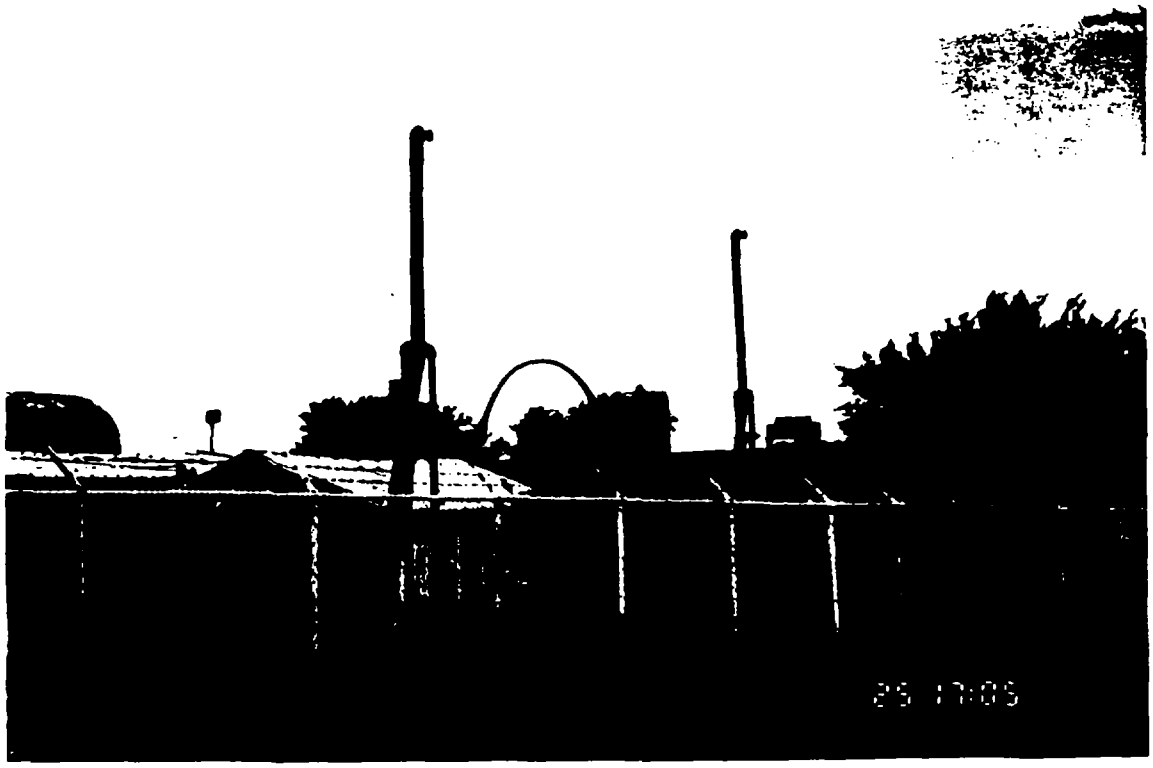
Direction: NW

Time: 17:05

Date: July 27, 1995

Site Name: Wastex Research #1

Description: Fence surrounding site.



: 3

ion: NNW

17:04

July 27, 1995

ame: Wastex Research #1

ption: Fence by east
b ng.

4

on: W

17:00

July 27, 1995

me: Wastex Research #1

tion: Fence with
dock in background.

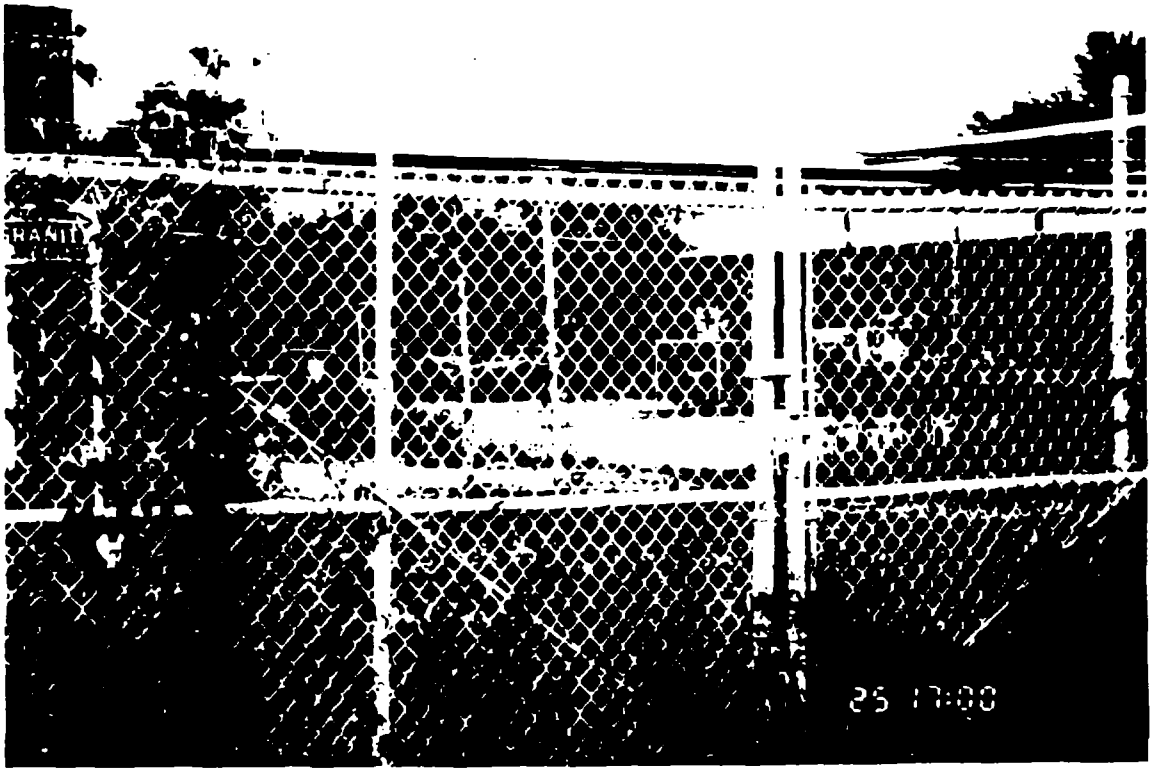


Photo: 5

Direction: NW

Time: 17:05

Date: July 27, 1995

Site Name: Wastex Research #1

Description: Fuel tank storage area.

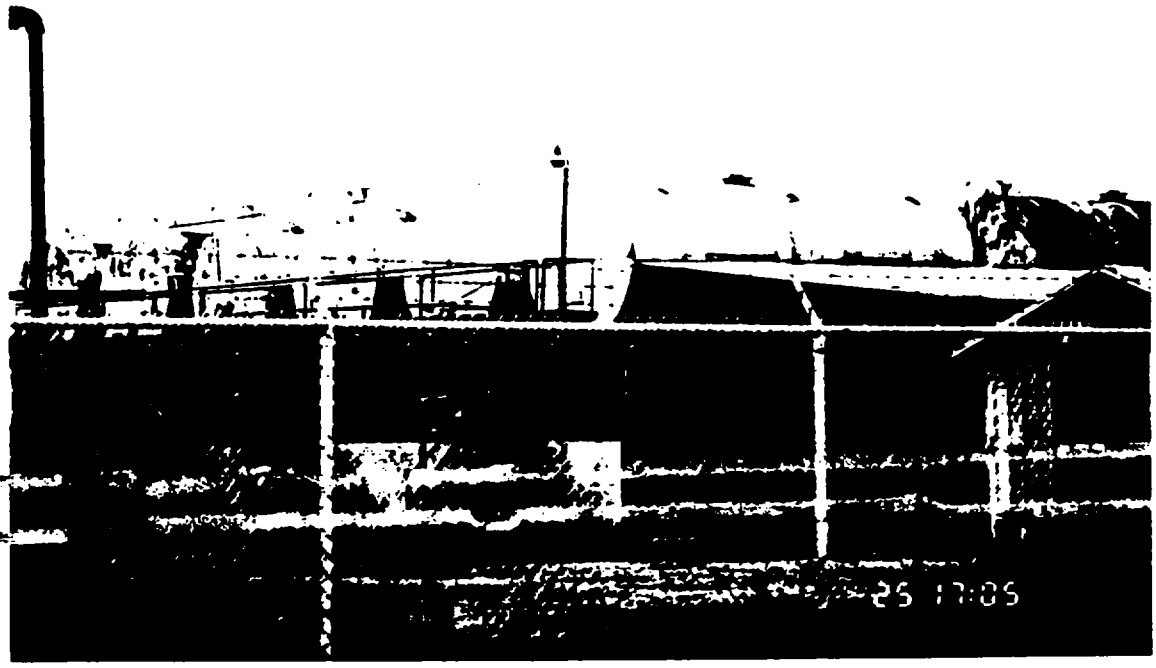


Photo: 6

Direction: W

Time: 17:01

Date: July 27, 1995

Site Name: Wastex Research #1

Description: Fuel tank storage area by the fuel shed.

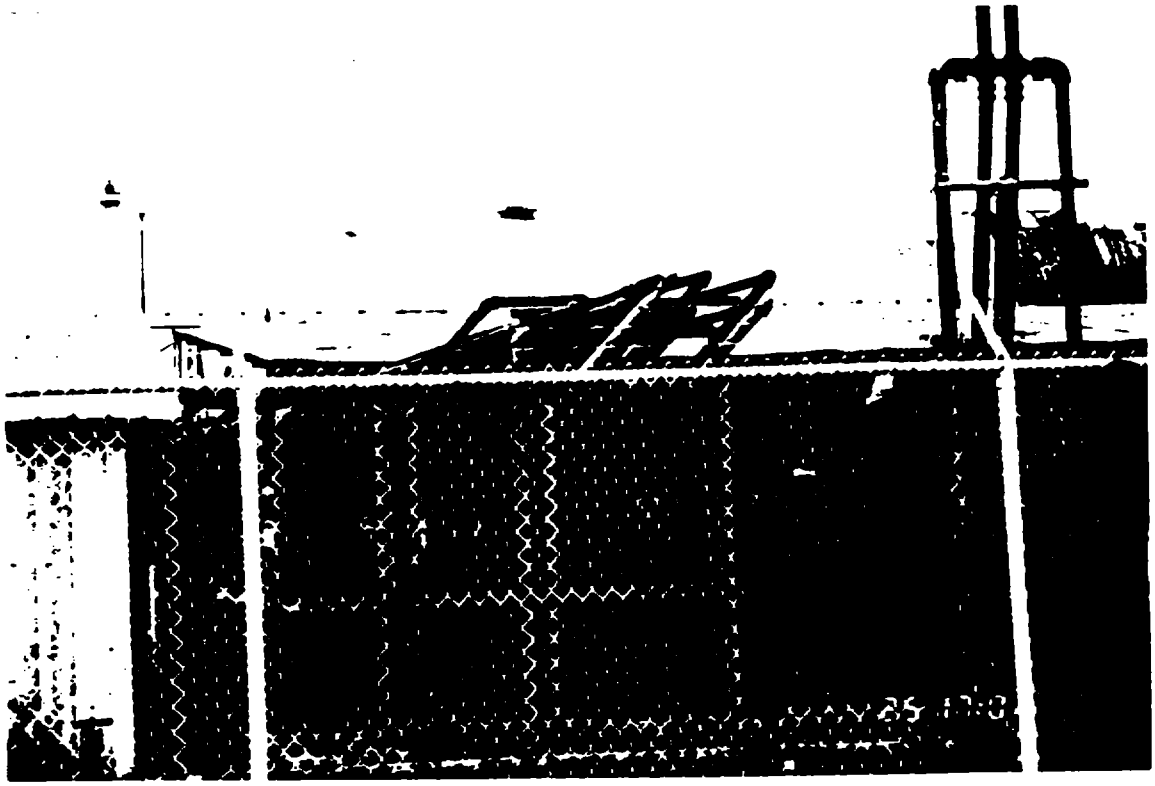


Photo: 7

Direction: WSW

Time: 16:59

Date: July 27, 1995

Site Name: Wastex Research #1

Description: Fuel tank storage area (12,000 gallon).

Photo: 8

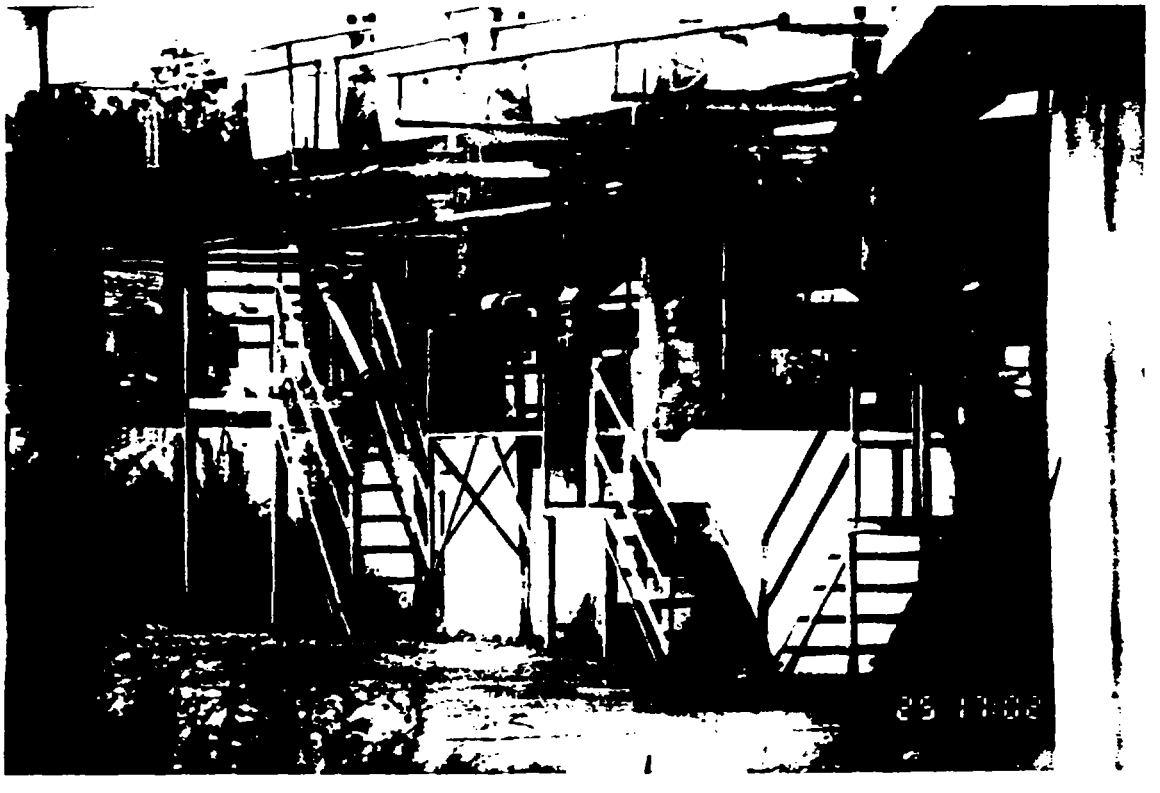
Direction: NW

Time: 17:02

Date: July 27, 1995

Site Name: Wastex Research #1

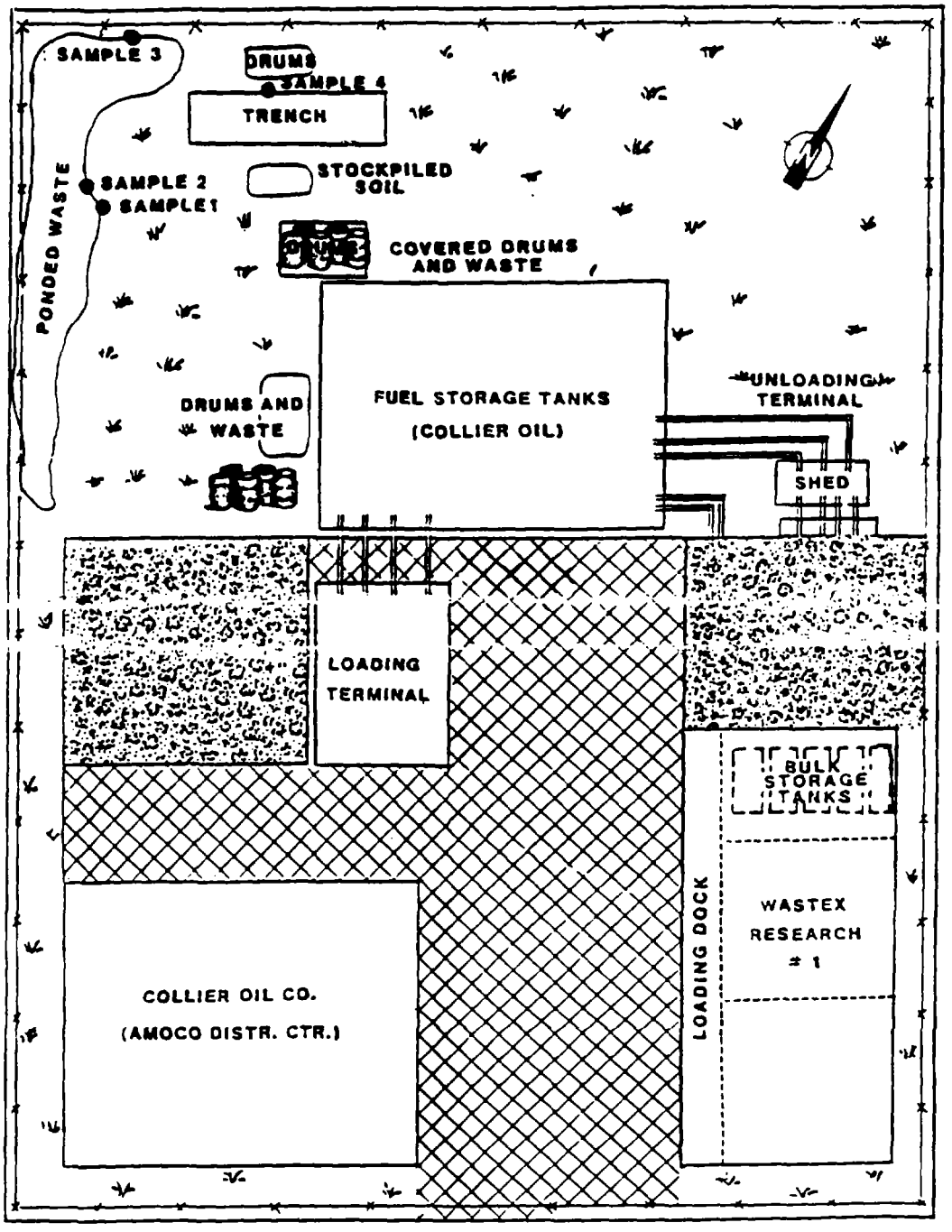
Description: Loading dock for fuel storage tank area.



APPENDIX B

1986 PRELIMINARY SITE INVESTIGATION SOIL SAMPLING LOCATIONS AND ANALYTICAL RESULTS

SAMPLING DATE: JANUARY 23, 1980



ecology and environment, inc.
Technical Assistance Team
Region V

TITLE: Sample Location Map	FIGURE #: 2-3
SITE: Wastex Research #1	TDD#: T05-9501-251
CITY: East St. Louis STATE: Illinois	SCALE: Not to scale
SOURCE: Ecology and Environment, Inc.	DATE: 1980 REVISED: 1995

Photo: 1

Direction: Unknown

Time: 17:08

Date: July 27, 1995

Site Name: Wastex Research #1

Description: Fence surrounding site.

Photo: 2

Direction: NW

Time: 17:05

Date: July 27, 1995

Site Name: Wastex Research #1

Description: Fence surrounding site.

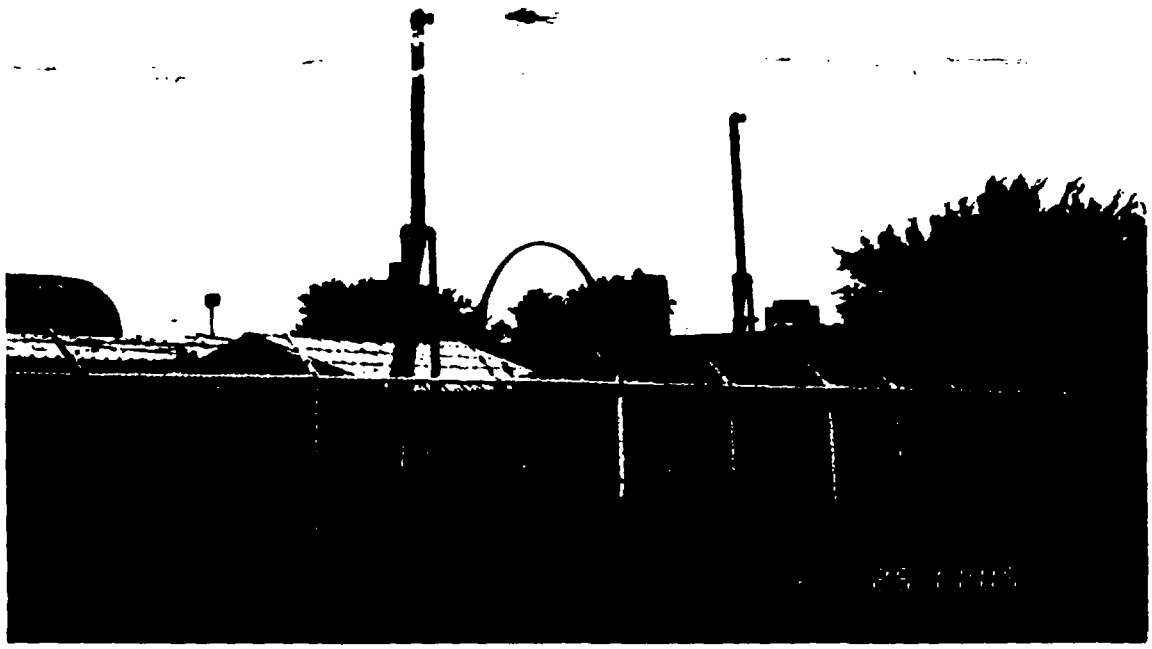


Photo: 3

Direction: NNW

Time: 17:04

Date: July 27, 1995

Site Name: Wastex Research #1

Description: Fence by east side of building.

Photo: 4

Direction: W

Time: 17:00

Date: July 27, 1995

Site Name: Wastex Research #1

Description: Fence with loading dock in background.

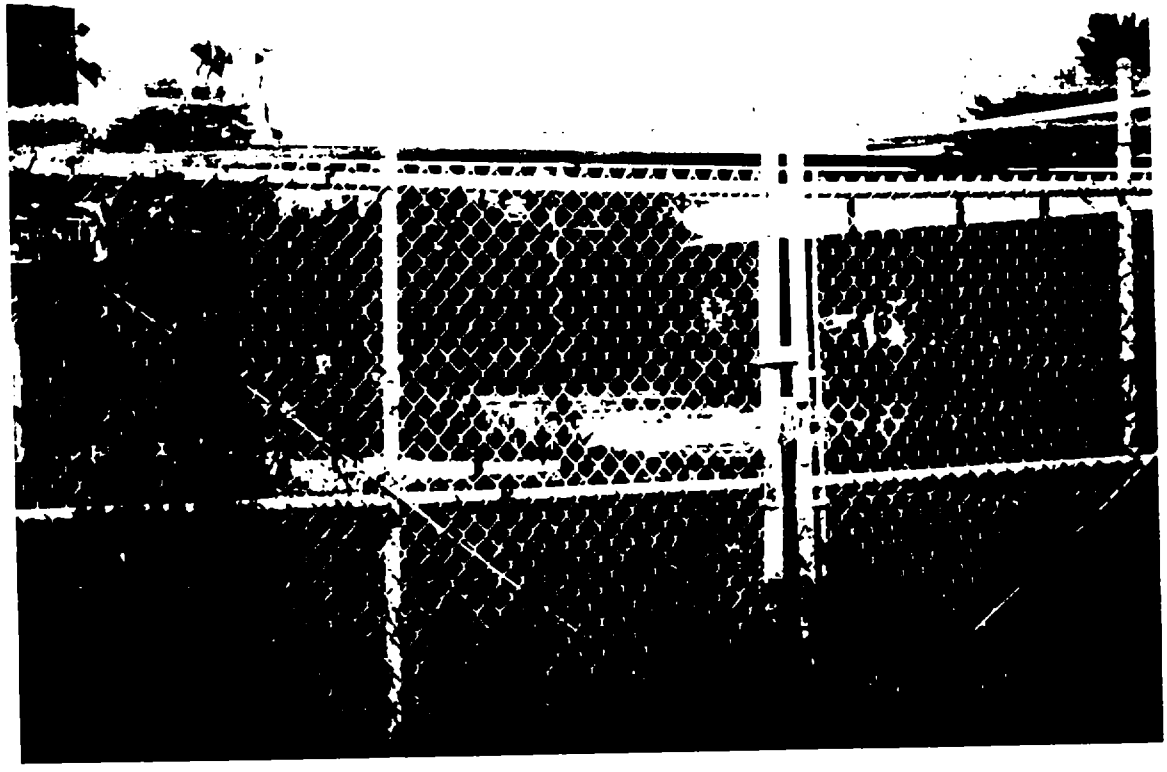


Photo: 5

Direction: NW

Time: 17:05

Date: July 27, 1995

Site Name: Wastex Research #1

Description: Fuel tank storage area.

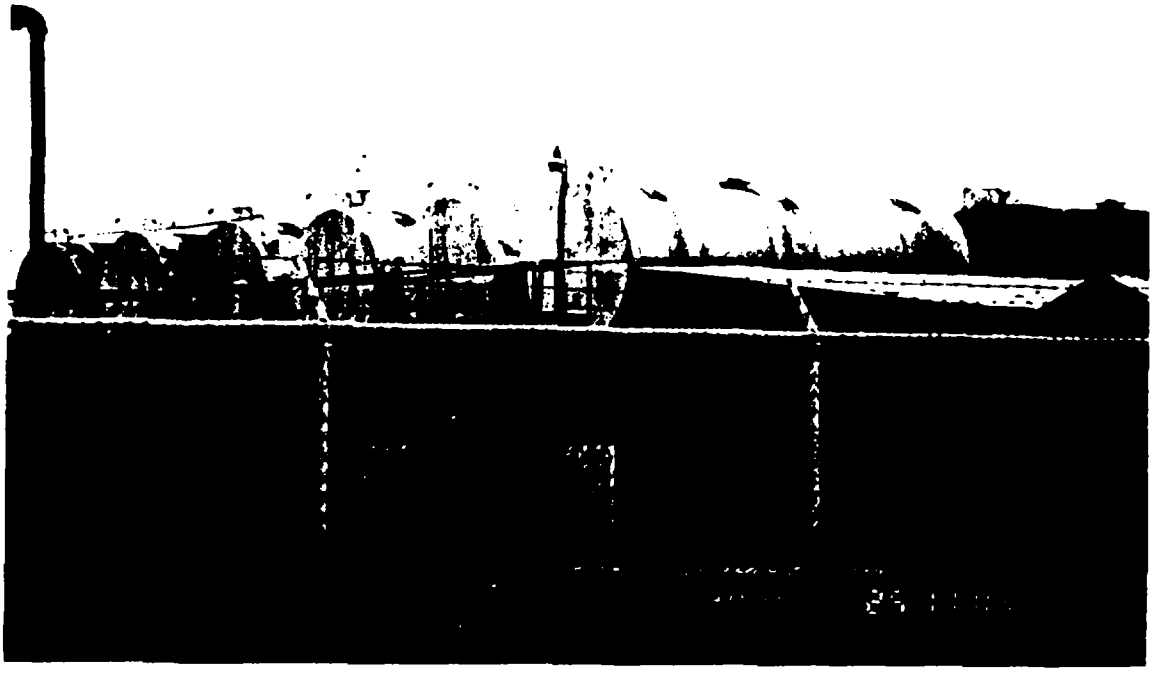


Photo: 6

Direction: W

Time: 17:01

Date: July 27, 1995

Site Name: Wastex Research #1

Description: Fuel tank storage area by the fuel shed.

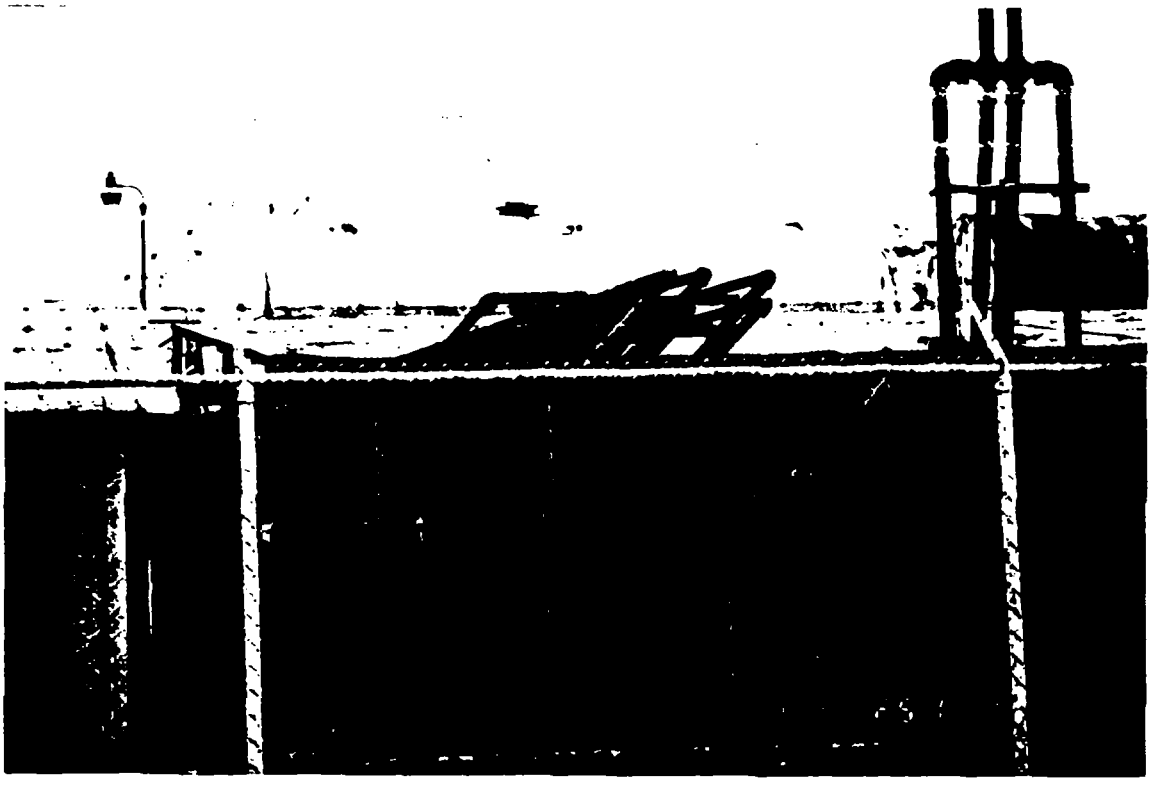


Photo: 7

Direction: WSW

Time: 16:59

Date: July 27, 1995

Site Name: Wastex Research #1

Description: Fuel tank storage area (12,000 gallon).

Photo: 8

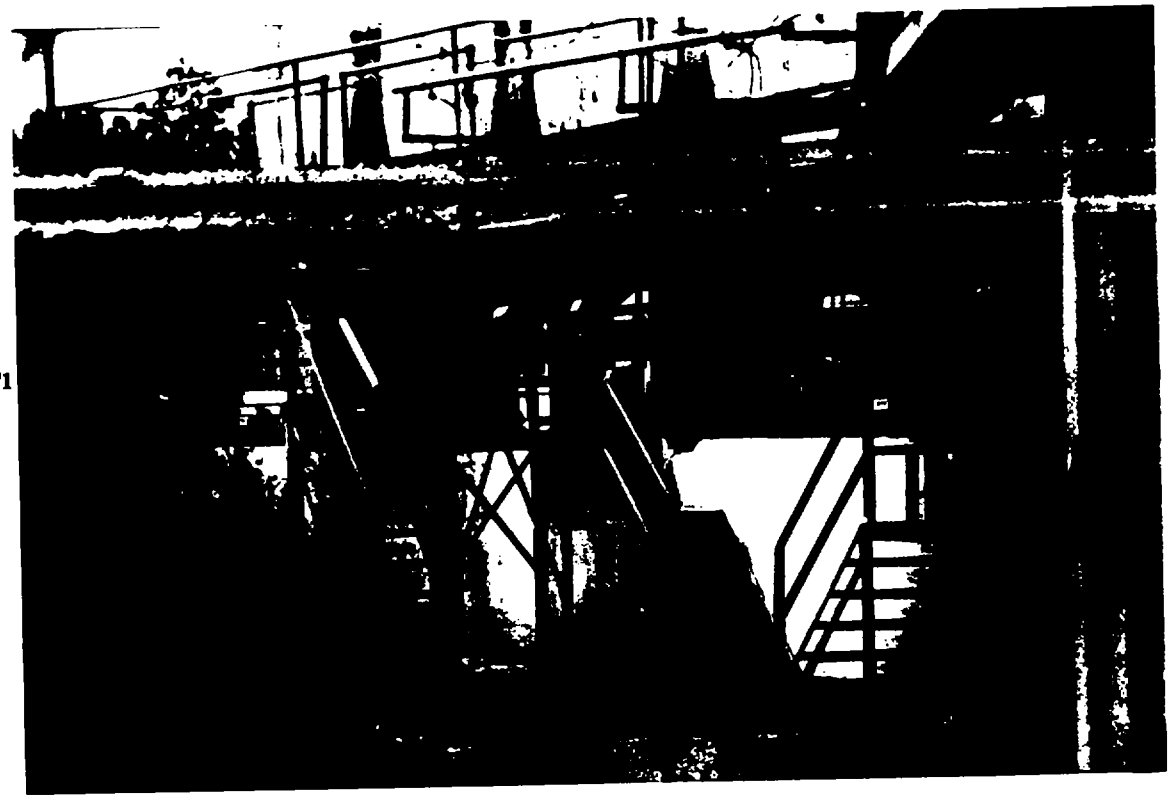
Direction: NW

Time: 17:02

Date: July 27, 1995

Site Name: Wastex Research #1

Description: Loading dock for fuel storage tank area.



Send copy of analyses to Southern Region, Div. of Pollution Control
1158 West Main
Collinsville, IL 62234

-CL-5964

Time Collected: 11.30 AM
Date Collected: 1-23-80

SPECIAL ANALYSIS FORM

Lab #
Date Received JAN 25 1980

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
St Clair	East St Louis / WastX	163 045 31

SOURCE OF SAMPLE: (Exact Location)

(#1) East corner of WastX Research facility (app 5yds from side fence + 10yds from Back fence)
Ponded waste on surface of ground

PHYSICAL OBSERVATIONS, REMARKS:

- brownish red, thinner-like smell
- oily texture
- some soil mixed with

TESTS REQUESTED: facility recycles paint waste for paint solvents
Sample suspected to contain paint solvents, paint pigments and soil
Identify constituents and concentrations.

COLLECTED BY: [illegible] TRANSPORTED BY: Kevin Leonard

LABORATORY

RECEIVED BY: QA DATE COMPLETED: 10/15/80 DATE FORWARDED: 10/15/80
J Hurley

Toluene = 4600 ug/g
Xylenes = 20,000 ug/g
other alkylbenzenes = 40,000 ug/g
Naphthalene = 9600 ug/g
aliphatic hydrocarbons = 133,000 ug/g
(as No.2 fuel oil or diesel fuel)

Flash Point = 80°F

LPC-8A 4/77 (NOT FOR DATA PROCESSING)
recycled paper
ecology and environment

115A West Main
Collinsville, Il 62234

Time Collected: 11:30AM
Date Collected: 1-23-80

SPECIAL ANALYSIS FORM

Lab # 0015965
Date Received JAN 25 1980

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
St. Clair	East St Louis/WasteX	16304531

SOURCE OF SAMPLE: (Exact Location)

(04) East corner of WasteX Research facility (5 yds fr back fence, 2 yds fr side fence)
Ponded waste in trench

PHYSICAL OBSERVATIONS, REMARKS:

- brownish red, thinner-like smell
- oily texture
-

TESTS REQUESTED: facility recycles paint waste for paint solvents
Sample suspected to contain paint solvents, and paint pigments
Identify constituents and concentrations

COLLECTED BY: Joe J. De Sl[illegible] TRANSPORTED BY: Kevin Pierard

LABORATORY

RECEIVED BY: [illegible] DATE COMPLETED: 10/15/80 DATE FORWARDED: 10/15/80
J. Hurley

Toluene = 28,000. ug/g
Xylene = 45,000 ug/g
other alkylbenzenes = 34,000. ug/g
Naphthalene = 3100. ug/g
aliphatic hydrocarbons = 135,000 ug/g
(as No. 2 fuel oil or diesel fuel)

LPC-8A 4/77 (NOT FOR DATA PROCESSING) FEB 20 1985

· Send copy of analyses to Southern Region, Land Pollution Control
(115A West Main
Collinsville, Ill 62234

015963

Time Collected: 11:30 AM

Date Collected: 1-23-80

Lab #

SPECIAL ANALYSIS FORM

Date Received JAN 25 1980

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
St. Clair	East St. Louis / Waste X	163 045 31

SOURCE OF SAMPLE: (Exact Location)

#2 - East corner of WasteX Research facility (1 yd south of #1)
- ponded water on surface of ground.

PHYSICAL OBSERVATIONS, REMARKS:

- brownish red, thinner-like smell, oily texture, some soil mixed with

TESTS REQUESTED: ~~(waste fees)~~ facility recycles paint waste ~~(?)~~ for paint solv
Sample suspected to contain paint solvents, paint pigments and soil
Identify constituents and concentrations

COLLECTED BY: [signature] TRANSPORTED BY: Kevin Pierard

LABORATORY

RECEIVED BY: [initials] DATE COMPLETED: 10/15/80 DATE FORWARDED: 10/15/
J Hundey

Toluene = 4800. ug/g (PPM)
Xylene = 15,000 ug/g
other alkylbenzenes = 19,000 ug/g
Naphthalene = 2400 ug/g
Aliphatic hydrocarbons = 108,000 ug/g
(as No. 2 fuel oil or diesel fuel)

Flash Point = 80°F

RECEIVED

FEB [illegible] 1980

LPC-8A 4/73 Recycled paper (NOT FOR DATA PROCESSING) ecology and environment

115A West Main
Collinsville, Il 62234

Time Collected: 11:30 AM

Date Collected: 1-23-80

Lab # C015962

SPECIAL ANALYSIS FORM

Date Received JAN 25 1980

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
St. Clair	East St Louis/WasteX	163 04531

SOURCE OF SAMPLE: (Exact Location)

#3 East corner of WasteX Research facility (End of pond 5 yds from back fence
Ponded waste on surface of ground

PHYSICAL OBSERVATIONS, REMARKS:

- brownish red, thinner-like smell
- oily texture
- some soil mixed with

TESTS REQUESTED: facility recycles paint waste for paint solvents.
Sample suspected to contain paint solvents, paint pigments, ads "
Identify constituents and their concentrations.

COLLECTED BY: [signature] TRANSPORTED BY: [signature]

LABORATORY

RECEIVED BY: [signature] DATE COMPLETED: 10/15/80 DATE FORWARDED: 10/15/80
[signature]

Toluene = 24,000 ug/g (PPM)
Xylenes = 62,000 ug/g
other alkylbenzenes = 33,000 ug/g
Naphthalene = 6200 ug/g
Allphatic hydrocarbons = 94,000. ug/g
as No. 2 fuel oil or diesel fuel

LPC-8A 4/77 (NOT FOR DATA PROCESSING)

APPENDIX C

ENDANGERED SPECIES LIST FOR ST. CLAIR COUNTY, ILLINOIS

APPENDIX C

ENDANGERED SPECIES LIST FOR ST. CLAIR COUNTY, ILLINOIS

Latin Name	Species Name	Habitat	Status
Botaurus lentiginosus	American Bittern	freshwater marshes, wetlands	E
Casmerodius albus (Linnaeus)	Great Egret	Floodplain forests	E
Egretta caerulea (Linnaeus)	Little Blue Heron	Wetland forests, marshes	E
Egretta thula (Molina)	Snowy Egret	Lagoons and marshes of the American Bottoms	E
Gallinula chloropus (Linnaeus)	Common Moorhen	Freshwater marshes, lakes, ponds	T
Lanius ludovicianus Linnaeus	Loggerhead Shrike	Agricultural areas, grassland habitat	T
Nycticorax nycticorax (Linnaeus)	Black-crowned Night Heron	Wetland thickets, bottomland forests	E
Podilymbus podiceps Linnaeus	Pied-billed Grebe	Well vegetated lakes, ponds, marshes	E

Key:

E: Endangered Species

T: Threatened Species

APPENDIX D

REFERENCE DOCUMENTATION

663 9415

ecology and environment, inc.

International Specialists in the Environment

Job Number ZT3051

SITE NAME: Multiple

TDD #: Multiple

PAN #: Multiple

SSID #

Book 1 OF 1

WASTEX # 1 7/26/95

1510 I departed Sunset, Site G for Wastex #1 Site.

1555 Arrived at the facility. OSC Samuel Borries is present with TAT.
The facility former name is J. H. Cuhl, Inc., subsidiary of STANDARD Oil Co.
The ~~flo~~ S.S following were observed.

- The facility is fenced (8-foot chain link with barb wires. S.S
- There are ~12 aboveground oil tanks (~10,000 gallon each, see Site Drawing).
- ~~There are ~14~~ The 12 tanks still connected with the pump-house via pipe lines. The 12 tanks are contained.
- There are ~14 tanks aboveground with no secondary containment.
- * There are few oil stained spots ~~wit~~ within the fenced area. S.S
- No off-site migration of oil.
- No sign of trespassing or vandalism.
- There are night security lights and ~~flood~~ flood-lights.
- The S.S site is bordered by residential areas to the east, south and commercial areas to the west and north.
- On site, there are no evidence of scars on the ground (in ~~reference~~ reference to EPA claim of an open impoundment of waste)
- The site run-off - seems to stay

ecology and environment, inc.
CHICAGO, ILLINOIS

TELEPHONE LOG

REFERENCE

CONTACT	COMPANY or AGENCY	POSITION
Todd Gross	IEPA - Land Div.	

CONTACT ADDRESS	CONTACT PHONE NUMBER
Springfield IL.	

E&E EMPLOYEE	DATE	TIME
Alix Rauschman	May 24, 1995	11:05 AM

PROJECT NUMBER	SITE NAME and LOCATION
	Wastex, E. St. Louis

DISCUSSION — Todd told me he would send to me, the files concerning Wastex that were written by Dames & Moore. There is some good bg. info in there also. I should call Mike Grant of the Collinsville IEPA office. He has a lot of info on Wastex #1. Dames & Moore dealt w/ Wastex #2. Call Mike @ 618-346-5120

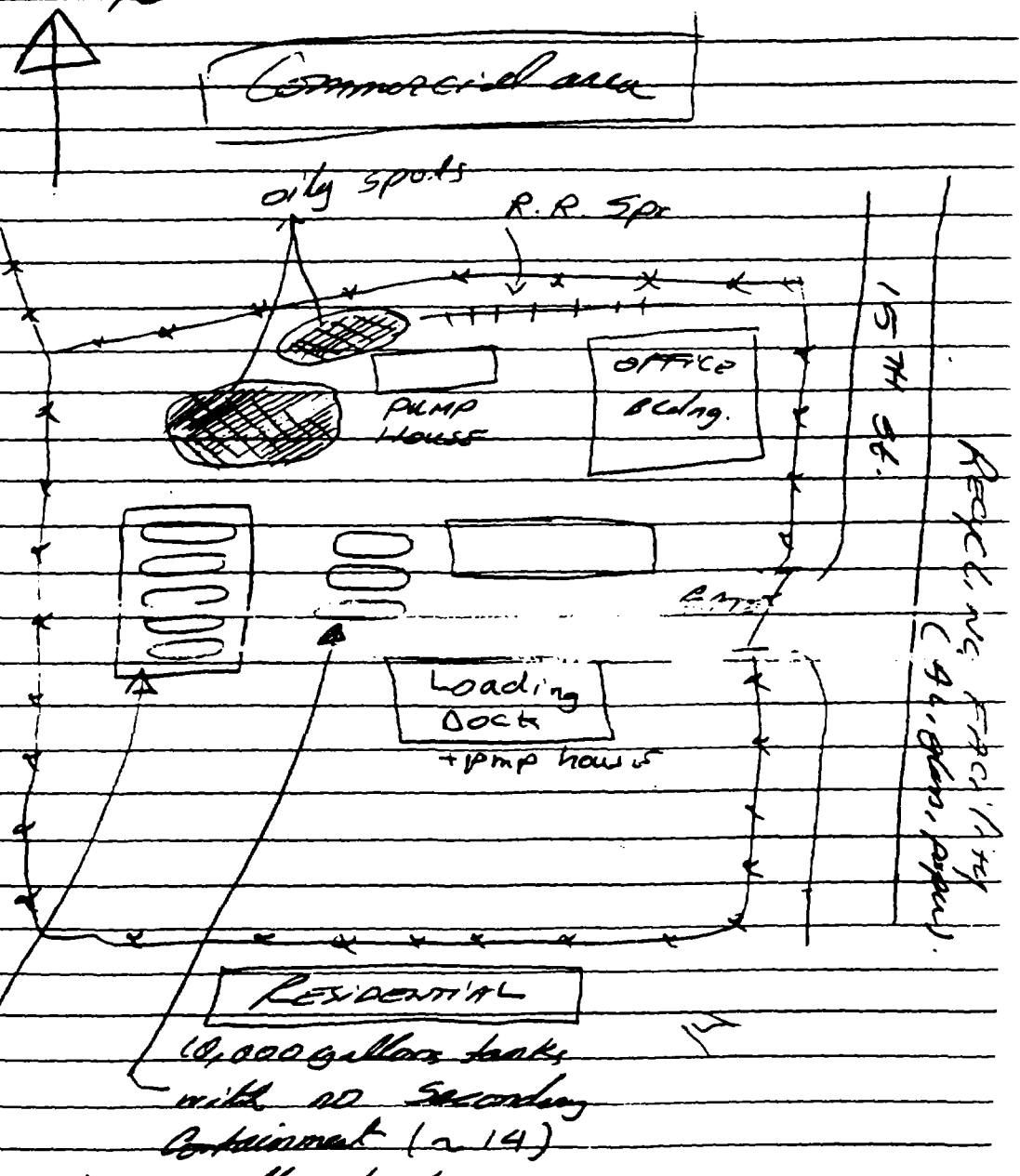
SIGNATURE

recycled paper

ecology and environment

10

N WASTEX #1 7/26/95



* All tanks were connected to the pump house via aboveground pipelines

From: JANET SAMUEL
To: FINDS
Date: 5/16/97 8:38am
Subject: FINDS

WASTEX

IL0001908805